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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,335	12/15/2003	William A. Orfitelli	84328SHS	3723

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EXAMINER

CRAWLEY, KEITH L

ART UNIT	PAPER NUMBER
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2629

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/736,335	Applicant(s) ORFITELLI, WILLIAM A.	
	Examiner KEITH CRAWLEY	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/15/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 contains the trademark/trade name Firewire in the last line of the claim.

Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a display control physical interface and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Schiefer et al. (US 6,177,922).

Regarding claim 1, Schiefer discloses a display apparatus for enabling artifact-free rapid image format changes to a display device (abstract), comprising:

a) a processing unit arranged to automatically receive and process a packet of streaming image content (fig. 1, see col. 7, line 21-30), including,

i) a decoder image processor that receives the packet of streaming image content via a digital process unit content interface (fig. 1, video decoder 120 and video input interface 130, see col. 8, line 11-27),

ii) a decoder control processor that receives the packet of streaming image content from the decoder image processor (fig. 1, microcontroller 150 and input selector 100, see col. 7, line 51-63 and col. 7, line 66-col. 8, line 3), and

iii) a display driver that receives the packet of streaming image content from the decoder image processor and the decoder control processor as formatted image data (figs. 1 and 3, format converter 110 and microcontroller 150),

whereupon the display driver translates the formatted image data for transmission (figs. 1 and 3, see col. 9, line 7-20);

b) a display device (fig. 1, see col. 7, line 21-30), including

i) a display image data interface that receives the formatted image data from the display driver via a display image data physical interface (fig. 3, memory write controller 300, col. 9, line 55-col. 10, line 4),

ii) a display control interface that receives the format data from the display driver via a rapid format change display control physical interface (figs. 4 and 8, display synchronizer 410 and display timing generator 430, see col. 13, line 58-64),

iii) a display image processor for converting the image data to artifact-free image data before subsequent transmission (fig. 3, display processor 320, see col. 10, line 59-col. 11, line 4); and

iv) a spatial light modulator for receiving the artifact-free image data from the display image processor (fig. 1, flat panel display 140, see col. 1, line 46-49, see also col. 7, line 25-27 spatial light modulators utilizing liquid crystal displays are well known in the art).

v) a display control processor for controlling and transmitting format data to the display image processor (fig. 3, display timing controller 330, see col. 11, line 44-60).

Regarding claim 3, Schiefer discloses wherein the display driver includes:

a) a driver image data interface that receives the formatted image data from the decoder image processor (fig. 1, format converter 110, col. 9, line 7-19); and

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b) a driver control interface that receives information on the format data from the decoder control processor (fig. 1, microcontroller 150, see col. 7, line 45-64).

Regarding claim 4, Schiefer discloses wherein transmission of the format data is over a display control physical interface selected from the group consisting of: RS232, I2C, Ethernet, and Firewire (col. 7, line 51-58, I2C is disclosed).

Regarding claim 5, Schiefer discloses wherein the driver image data interface is selected from the group consisting of: VESA, DVI or SMPTE (Society of Motion Picture and Television Engineers) standard video or display interface (col. 1, line 14-22, and col. 5, line 62-66, VESA is disclosed).

3. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Nagai (US 6,476,801).

Regarding claim 7, Nagai discloses a method for automatic rapid transitioning between image formats that reduces visual noise caused by the transition between image formats (abstract), comprising the steps of:

a) waiting for arrival of new image content (col. 10, line 25-35, see also col. 9, line 15-20);

b) extracting format information from the new image content (col. 9, line 63-col. 10, line 5, signal format identification portion 19 identifies signal format, see also col. 10, line 47-52);

c) analyzing format information for recognizable changes (col. 10, line 47-52, see also col. 10, line 55-col. 11, line 5);

d) sending a change format command to the display device where the format information did change (col. 11, line 14-30, selector 9 selects control signal information based on signal format identification signal);

f) transmitting the new image content to the display device where the format information did change (col. 11, line 27-32, various sequence control signals are applied to driving circuit 7 based on identified format, see also col. 11, line 40-46);

g) returning to step (a) (col. 10, line 25-35);

h) alternatively, transmitting the new image content to the display device where the format information did not change (col. 11, line 27-32, various sequence control signals are applied to driving circuit 7 based on identified format, see also col. 11, line 40-46); and

i) returning to step (a) (col. 10, line 25-35).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schiefer in view of Ide et al. (US 6,753,831).

Regarding claim 2, Schiefer fails to disclose wherein the spatial light modulator is blanked during known transition delays of an image format change to produce the artifact-free image data.

Ide teaches wherein the spatial light modulator is blanked during known transition delays of an image format change to produce the artifact-free image data (abstract, figs. 2 and 3, switching detection circuit 46 generates light-emission drive stop signal when input video selecting signal switches video signal, see col. 3, line 41-59, see also col. 2, line 9-12).

Schiefer and Ide are both directed to a method and apparatus for switching the input video format for a display device. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display device and method of Schiefer with the display device and method of Ide since such a modification prevents radiation noise from being generated in the display panel (Ide, col. 6, line 44-49) and reduces the costs of video processing systems (Schiefer, col. 4, line 5-8).

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6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai in view of Ide.

Regarding claim 6, Nagai discloses a method for automatically transitioning between image formats that reduces visual noise caused by the transition between image formats (abstract), comprising the steps of:

a) waiting for arrival of new image content (col. 10, line 25-35, see also col. 9, line 15-20);

b) extracting format information from the new image content (col. 9, line 63-col. 10, line 5, signal format identification portion 19 identifies signal format, see also col. 10, line 47-52);

c) analyzing format information for recognizable changes (col. 10, line 47-52, see also col. 10, line 55-col. 11, line 5);

e) sending a change format command to the display device where the format information did change (col. 11, line 14-30, selector 9 selects control signal information based on signal format identification signal);

f) transmitting the new image content to the display device where the format information did change (col. 11, line 27-32, various sequence control signals are applied to driving circuit 7 based on identified format, see also col. 11, line 40-46);

g) sending an unblank screen command to the display device where the format information did change (col. 11, line 40-46);

h) returning to step (a) (col. 10, line 25-35);

i) alternatively, transmitting the new image content to the display device where the format information did not change (col. 11, line 27-32, various sequence control signals are applied to driving circuit 7 based on identified format, see also col. 11, line 40-46); and

j) returning to step (a) (col. 10, line 25-35).

Nagai fails to disclose d) sending a blank screen command to a display device where the format information did change.

Ide teaches d) sending a blank screen command to a display device where the format information did change (abstract, figs. 2 and 3, switching detection circuit 46 generates light-emission drive stop signal when input video selecting signal switches video signal, see col. 3, line 41-59, see also col. 2, line 9-12).

Nagai and Ide are both directed to a method and apparatus for performing display control in response to a change in the input video format. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display device and method of Nagai with the display device and method of Ide since such a modification prevents radiation noise from being generated in the display panel (Ide, col. 6, line 44-49) and provides better display control in response to the signal format of an input signal (Nagai, col. 8, line 31-32).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

DeMond et al. (US 5,079,544) discloses a video display system which can receive and display a number of different video signals having different formats utilizing a processor to extract the image from a stream of digital signals to produce a digitized image to be displayed by a digital spatial light modulator.

Miyamoto (US 6,232,951) discloses a video data processor used in a system which displays an image regarding video data in a plurality of different display modes, with the video processor converting an image regarding the video data into data of a form suitable for display according to the transmitted mode data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEITH CRAWLEY whose telephone number is (571)270-7616. The examiner can normally be reached on M-F, 7:30-5:00 EST, alternate Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571)272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bipin Shalwala/
Supervisory Patent Examiner, Art Unit 2629

/KEITH CRAWLEY/
Examiner, Art Unit 2629